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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,638

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Hiroki Kaihori

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EXAMINER

WILLIAMS, JEFFERY L

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,638	<b>Applicant(s)</b> KAIHORI, HIROKI	
	<b>Examiner</b> JEFFERY WILLIAMS	<b>Art Unit</b> 2437	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

Claims 1 – 24 are pending.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/27/09 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 5, 10, 15, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claims 5, 10, 15, and 20, the examiner respectfully notes that they comprise issues rendering the meaning of the claims unclear.

For example, lines 8 and 14 of claim 5 recites "the second accumulation data" within the recitation "*or the second data processor generates and stores into the third storage the second accumulation data*". However, it is noted that applicant's reference to "the second accumulation data" appears improper as the accumulation data being referenced appears to be data generated by the second data processor and not the accumulation data generated by the first data processor. For the purpose of examination, the examiner presumes the applicant to recite "second accumulation data".

Claims 10, 15, and 20 comprise the same or similar issues and the applicant is respectfully encouraged to correct such deficiencies so as to render the scope of the claims clear.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji et al. (Tsuji), “Remote Control System”, U.S. Patent Publication 2004/0056776 in view of Hisada et al. (Hisada), U.S. Patent 6,043,752.**

Regarding claim 1, it is noted that Tsuji discloses:

*an immobilizer unit including: a first data processor; a first communication part connected with the first data processor; a first antenna connected with the first communication part; a first storage connected with the first data processor (Tsuji, fig. 1:2, see also fig. 1:1),*

*the first storage preliminarily storing first data for mutual authentication (Tsuji, fig. 11, par. 88); and a second storage connected with the first data processor (Tsuji, fig. 11 – herein Tsuji discloses a plurality of locations for storage (“storage”));*

*and a portable unit including: a second data processor; a second communication part connected with the second data processor; a second antenna connected with the second communication part; and a third storage connected with the second data processor (fig. 1:1, see also fig. 1:2),*

*the third storage preliminarily storing the first data for mutual authentication (Tsuji, fig. 11);*

*and a fourth storage connected with the second data processor, the fourth storage preliminarily storing second data for mutual authentication different from the first data for mutual authentication (Tsuji, fig. 11);*

As noted above, Tsuji discloses the claimed apparatus or system. The examiner notes that system or apparatus claims must be *structurally* distinguishable from the prior art. Furthermore, the examiner reminds the applicant that “[A]pparatus claims cover what a device is, not what a device does.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

The examiner notes that the prior art will be relied upon as disclosing the structure required by the claims. However, regarding the various recitations of the claims featuring aspects pertaining the operation of the claimed system or apparatus, the examiner notes that the prior art will continue to be referenced largely for the applicant’s benefit and understanding of the prior art reference.

*wherein:*

*the immobilizer unit further includes an information reception part connected with the first data processor (Tsuji, fig. 1:11, 21), and when a first instruction is fed into the information reception part (Tsuji, fig. 1:11, 21 – computing devices operate according to instructions)*

Tsuji discloses a vehicle security system wherein two communicating units comprise means for conducting bi-directional communication (Tsuji, par. 84, 92). Tsuji discloses *the first data processor and the second data processor authenticate each other by: (1) the first data processor transmitting via the first antenna an ... data based on the first data for mutual authentication stored in the first storage and (2) the second data processor receiving via the second antenna ... the ... data* (Tsuji, par. 84,88,90).

However, Tsuji does appear to disclose that data transmitted from the first data processor is encrypted. Thus, Tsuji does not appear to disclose a means for encryption.

Hisada also discloses a vehicle security system wherein two communicating units comprise means for conducting bi-directional communication (e.g. Hisada, fig. 10, 11). Hisada discloses that the communications between the units should be encrypted Hisada, 4:17-28; 16:48-55). Thus, Hisada discloses a means for encryption. It would have been obvious to one of ordinary skill in the art to employ encryption and decryption of transmitted and received data within the security system of Tsuji because one of ordinary skill in the art would have been motivated by the teachings for improving security (Hisada, 16:48-55).

*Responsive to the authentication between the first data processor and the second data processor, the second data processor transmits the second data for mutual authentication via the second antenna; the first data processor further stores, into the second storage, the second data for mutual authentication received via the first antenna and transmits the second data stored in the second storage via the first antenna; and the second data processor further stores, into the third storage, the second data for mutual authentication received via the second antenna (Tsuji, par. 43, 44, 49, 53).*

Regarding claim 4, as best understood by the examiner, it is rejected, at least, for the same reasons as claim 1, and furthermore because, the combination enables:

*Responsive to the authentication between the first data processor and the second data processor, the first data processor generates, stores into the second storage, and transmits via the first antenna, second data for mutual authentication different from the first data for mutual authentication (Tsuji, par. 84, lines 1-6, fig. 10:33), and the second data processor stores, into the third storage, the second data for mutual authentication received via the second antenna (Tsuji, par. 84, lines 6-10).*

Regarding claim 5, as best understood by the examiner, it is noted that the limitations are not required by the claims (e.g. see recitations “*when both...*”). However, the examiner points out that the combination enables:

*wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, either the first data processor generates and stores into the second storage first accumulation data different from the second data for mutual authentication, or the second data processor generates and stores into the third storage the first accumulation data; and when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor generates and stores into the second storage, second accumulation data different from the first data for mutual authentication, or the second data processor generates and stores into the third storage the second accumulation data (Tsuji, par. 89).*



Regarding claim 6, as best understood by the examiner, it is noted that the limitations are not required by the claims (e.g. see recitations “*when both...*”). However, the examiner points out that the combination enables:

*wherein, upon input of a second instruction into the information reception part, when both of data stored in the second storage and the third storage are the second data for mutual authentication, the first data processor transmits the first data for mutual authentication stored in the first storage via the first antenna, and the second data processor stores, into the third storage, the first data for mutual authentication received via the second antenna; and when both of data stored in the second storage and the third storage are identical to the first data for mutual authentication, either the first data processor generates and stores into the second storage, second accumulation data different from the first data for mutual authentication, or the second data processor generates and stores into the third storage the second accumulation data (Tsuji, par. 89).*

Regarding claim 7, as best understood by the examiner, it is noted that the combination enables:

*wherein the portable unit further has a fifth storage preliminarily storing an ID code, and the first data processor and the second data processor authenticate each other also using the ID code (par. 84 – herein, Tsuji discloses receiving a signal comprising an ID code. The ID code is subsequently held for processing and performing operations using the code, thus requiring a means of storage).*

Regarding claim 8, as best understood by the examiner, it is noted that the combination enables:

*wherein the immobilizer unit further has a sixth storage, the second data processor transmits, via the second antenna, the ID code stored in the fifth storage, and the first data processor stores, into the sixth storage, the ID code received via the first antenna (Tsuji, par. 84, fig. 10:33).*

Regarding claim 9, as best understood by the examiner, it is noted that the combination enables:

*wherein upon input of a second instruction into the information reception part, the first data processor generates third accumulation data different from the ID code stored in the sixth storage, and stores the third accumulation data into the sixth storage (Tsuji, fig. 11; par. 43).*

Regarding claims 2, 3, and 10 – 24, they comprise essentially similar recitations as claim 1 - 9, and they are rejected, at least, for the same reasons.

### ***Response to Arguments***

Applicant's arguments filed 7/27/09 have been fully considered but they are not persuasive.

*Applicant argues essentially that:*

Neither Fig. 10 nor Fig. 11 show multiple storage for each of vehicle 32 and portable unit 30. Instead, Fig. 11 of Tsuji et al. relates to an enciphering table that is stored in a RAM of portable device unit 30. Tsuji et al. are silent regarding an immobilizer unit and a portable unit each including multiple storage, as required by claim 1. (Remarks, pg. 16)

*Examiner respectfully responds:*

The examiner respectfully notes that the prior art description, including figures 10 and 11, clearly show locations available to stored a plurality of data items. Thus, the prior art clearly discloses "multiple storage".

*Applicant argues essentially that:*

In addition, Tsuji et al. do not disclose or suggest a mutual authentication between first and second data processors (of the respective immobilizer unit and the portable unit) which includes: 1) passing and comparing first data stored in each of the immobilizer unit (first storage) and the portable unit (third storage) and 2) passing second data (initially stored in a fourth storage of the portable unit) between the immobilizer unit (second storage) and the portable unit (third storage), as required by claim 1. Although Tsuji et al. teach a portable unit which receives a challenge code and transmits and enciphered challenge code, Tsuji et al. do not teach passing second data

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between an immobilizer unit and a portable unit as part of a mutual authentication.

Furthermore, as acknowledged by the Examiner on page 6 of the Office Action, Tsuji et al. do not disclose that the data transmitted from the first processor is encrypted, as required by claim 1.

*Examiner respectfully responds:*

In light of the applicant's arguments pertaining to the manner in which the claimed apparatus operates, the examiner respectfully suggests that the applicant amend the claims so as to recite method claims explicitly comprising the method steps in question. In response to applicant's argument that the prior art structure fails to disclose the operation intended, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

***See Notice of References Cited.***

A shortened statutory period for reply is set to expire **3** months (not less than 90 days) from the mailing date of this communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery Williams whose telephone number is (571) 272-7965. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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